Interdisciplinary Circular Economy Conference 2020

December 1, 2020 | Panel discussion: Enabling circular B2B-textiles

Title of Session Panel discussion: Enabling circular B2B-textiles

Relevant conference topic Business Models, Innovation, Design

Authors Ria Müller*, Sabrina Schmidt**

Panelists Ina Budde, Sabrina Schmidt, Kai Nebel, Martijn

Witteveen, Fabian Takacs.
Panel Facilitator: Ria Müller

Contact

*Ria Müller **Sabrina Schmidt

Institute for Ecological Economy Research (IÖW)
Potsdamer Straße 105

D-10785 Berlin, Germany Fax: +49 - 30 - 882 54 39

Phone: +49 - 30 - 884 594 - 56 Phone: +49 - 30 - 884 594 - 93 Email: ria.mueller@ioew.de Email: sabrina.schmidt@ioew.de



What about a closed-loop textile industry with functioning recycling processes and corresponding infrastructures? How about textile rental/leasing replacing the purchase of workwear?

This is a participatory panel discussion examining ce in the business-to-business textile sector. Why? Workwear leads to enormous quantities of identical textiles – with serious consequences for the environment. Picture applications in health care, tourism or uniforms for police and transport operators. Five expert panelists present both current scientific findings and practical solutions how to transform the market. Get involved in discussions on "design for circularity" and "innovative business models". See also https://www.ditex-kreislaufwirtschaft.de/english

Agenda digital panel discussion: Enabling circular B2B-textiles on dec 1, 2020

11.30 a.m. Welcome & Introduction

corresponding ce research: DiTex Müller | IÖW

Brief Introduction of each presenter/panelist

11.40 a.m. Design for circularity enabling circular B2B-textiles

Key-Messages: relevance and approach Budde | circular.fashion

Brief Experiences in business (Witteveen | Dibella) and science (Nebel | Reutlingen Research Institute)

20 minutes discussion with participants

12.10 p.m. Circular business models enabling circular B2B-textiles

Key-Messages: relevance and scientific approaches Schmidt | IÖW & Takacs | University of St. Gallen

Brief Experiences in business Budde | circular.fashion

20 minutes discussion with participants

12.45 p.m. Wrap-up

Learnings, final contributions and feedback

1 p.m. Farewell & close

Interdisciplinary Circular Economy Conference 2020

December 1, 2020 | Panel discussion: Enabling circular B2B-textiles

Abstract

Key words: Sustainability, circular economy, circular design, digital innovation, sustainable procurement, work wear

Resource efficiency and recyclability: trending terms or actually feasible within the business-to-business (B2B) textile sector? Growth in global textile production seriously affects the environment and violates human rights. A more efficient usage of resources motivates the common vision towards a circular economy. So far, there is a lack of recyclable product designs and a functioning infrastructure for returning recyclable textiles. The inquired panelist are distinguished experts and most of them participate in the DiTex project. The various competences enable a transdisciplinary approach, gathering the current state of research, market insights, innovation diffusion of business models and expertise in leapfrogging digital technology applied in smart and more efficient recycling. In the proposed panel discussion, the role of design for circularity, emapping digital technologies and innovative business models are explored as part of the solution towards a more circular B2B textile sector.

<u>Design tailored towards circularity</u> requires a holistic approach considering the product's end of life already at the beginning of a product's development. DiTex establishes market dialogues capturing relevant stakeholder perspectives. This process enables a participative product design by collaboratively merging knowledge from disciplines such as textile technology and material sciences with real-world market demands.

Tracking, sorting and recycling are crucial links of a functioning circular economy. State-of-the-art sorting and recycling technologies operate on an increased efficiency level when information on the specific input composition is available. Relevant information can be saved on a tracking ID and sorted by single-origin fibre. Such smart systems result in recycled material of higher quality. The DiTex project therefore aims at increasing transparency of information along a product's value chain. The potentials and limitations of currently available and applied technologies are being studied. Textiles of the same type occur in bulk when employees in e.g. health care, catering or the state police are equipped with uniforms. Logistics around work wear are an ideal starting point for realising largely closed material cycles. The corresponding infrastructure functions as a take back system by default due to the respective distribution scheme. Product-service systems such as rental and leasing business models already occur in the industrial laundry sector. Transferability and potentials for a broad roll-out of these models is subsequently tested. Tracking the ecological and economic effects of the project's endeavour is ensured by corresponding evaluation and analyses. Focal indicators are quality, resource efficiency, sustainability and potential rebound effects.

DiTex is a three-year joint research project with an overall funding volume of 2.1 Million Euro. It is part of the funding initiative "Resource-efficient Circular Economy - Innovative Product Cycles (ReziProK)". By the German Federal Ministry of Education and Research (BMBF). The overall aim is to contribute to a resource-efficient circular economy. Research results are meant to be transferred to commercial practice and marketable products in order to strengthen companies in Germany as competitive providers of circular economy solutions.

Interdisciplinary Circular Economy Conference 2020

December 1, 2020 | Panel discussion: Enabling circular B2B-textiles

List of speakers / panelists

Ria Müller is senior researcher and partner at Institute for Ecological Economy Research since 2011. Her research field is "Ecological Product Policy" with a strong focus on "sustainable public and commercial procurement" and "Innovation and Technologies". Ria is coordinator of Ditex, e.g. initiating and drafting the market dialogues and the 8 months wearing trials within public authorities. Due to her long-term research experience, she can contribute a high-level perspective on the relevancy of the topic.

<u>Sabrina Schmidt</u> has been working as a research associate in the research field "Ecological Product Policy" at the <u>Institute for Ecological Economy Research</u> since February 2019. Sabrina's research mainly addresses sustainable corporate structures and processes as well as the diffusion of sustainable innovations. Within the DiTex project, Sabrina investigates innovative business models and adds to the panel through her expertise on this particular conference topic.

<u>Ina Budde</u> is co-founder of the start-up <u>circular.fashion</u>. The start-up provides a digital platform for material suppliers, fashion brands and recyclers where tools and resources can be accessed to ensure circularity in every step of the supply chain. The circular design software, consisting of a material library, design guidelines and a product development tool, supports businesses to design circular and more sustainable products. The aim is to set an industry-wide standard by providing a digital tag, a so-called circularity.ID. Increased transparency and traceability enable reverse supply chain intelligence for customers, sorting firms and recyclers, allowing textiles to be recycled smarter. Ina complements the panel through her vision to transform the fashion industry into a more circular economy.

Since January 2019, Martijn Witteveen is responsible for quality management at Dibella. Dibella was founded in 1986 and has developed into a pioneering textile service partner in terms of sustainability. Dibella is one out of two business partners within the DiTex consortium. The transdisciplinary approach of the project ensures application-oriented research. Within DiTex three different product lines made from recycled materials have been developed. Dibella designs and produces bed linen and will test the products during the piloting phase in 2021. Martijn adds a business perspective to the panel and contributes with his market expertise.

Since January 2017, <u>Fabian Takacs</u> has been a PhD student within the Chair for Strategic Management at the University of St. Gallen. As part of the Swiss National Research Programme <u>NRP 73</u> - "Sustainable Economy: resource-friendly, future-oriented, innovative" - Fabian examines the concept of circular economy with a particular focus on business model innovations from a business management perspective. Fabian completes the panel contributing the current state of research on <u>Circular Ecosystems - Business Model Innovation for the Circular Economy (Takacs et al., 2020)</u>.

<u>Kai Nebel</u> is head of sustainability research and expert in textile processing, product development and recycling at the <u>faculty Textile & Design at Reutlingen University/Germany</u>. Within the DiTex project, Kai Nebel is responsible for product design and quality assessment. His contribution to the panel are based on his long experience in textile research.